

WHAT IS CLAIMED IS:

1. A chemical decontamination method of chemically decontaminating radioactive nuclides from a metallic material contaminated by the radioactive nuclides, the method comprising the steps of:

injecting oxalic acid and hydrazine as a reductive decontaminating agent into water being in contact with the metallic material;

stopping the injecting step of the hydrazine after cation ^{exchange} resin arranged in a circulation line connected to the metallic material breaks; and

decomposing at least oxalic acid and the hydrazine in the reductive decontaminating agent using a decomposing catalyst.

2. A chemical decontamination method as claimed in claim 1, further comprises a step of:

introducing said water being in contact with metallic material into said cation resin.

3. A chemical decontamination method as claimed in claim 2, wherein said step of introducing said water being in contact with metallic material into said cation resin is performed prior to said step of stopping the injection of the hydrazine.

5 5. A chemical decontamination method as claimed in
claim 1, wherein H_2O_2 is injected into said water during
said decomposing step.

cleaning said water after said decomposing step.

changing said cation resin after said decomposing

reductively decontaminating the radioactive nuclides
the metallic material by injecting oxalic acid and
azine as a reductive decontaminating agent into a
ulation line connected to the metallic material;

stopping the injecting step of the hydrazine after
cation resin arranged in a circulation line connected to
the metallic material breaks; and

decomposing at least oxalic acid and the hydrazine
in the reductive decontaminating agent using a
decomposing catalyst.

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